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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,521	11/27/2001	Chang Nam Kim	K-0353	8125

34610 7590 06/13/2003

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EXAMINER

LAZOR, MICHELLE A

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 06/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,521

Applicant(s)

KIM ET AL.

Examiner

Michelle A Lazor

Art Unit

1734

-- Th MAILING DATE of this communication app ars on the cover sheet with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 6 – 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Oshita (JP 2001237073).

Regarding Claim 1, Oshita discloses a mask (43) comprising a plurality of sub-masks (42) each having at least one pattern; and a main frame having a plurality of holes formed therein, wherein each of the sub-masks is placed in one relevant hole of the holes to be movable in up and down, and left and right directions (Figure 13). Thus Oshita discloses all the limitations of Claim 1, and anticipates the claimed invention.

Regarding Claims 6 – 8, Oshita discloses a mask wherein a number of the holes in the main frame is equal to a number of the sub-masks; the number also depends on the number of devices intended to be fabricated; and finally, the size of the main frame is equal to or greater than a panel on which a material is to be deposited (entire English translation document). Thus Oshita discloses all the limitations of Claims 6 – 8, and anticipates the claimed invention.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 – 5 and 9 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshita as applied in Claim 1 above, in view of Wirth (U.S. Patent No. 6146489).

Regarding Claims 2 and 9, Oshita discloses all the limitations of Claim 1, but does not disclose the sub-mask fixed to a sub-frame. However, Wirth teaches using a cover mask wherein a clamp frame is fixed to a mask (column 1, lines 47 – 50 and column 2, lines 24 – 34).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a frame fixed to a mask to precisely locate the mask in an array and avoid parts of the array from not being coated, which is undesirable (column 1, line 61 – column 2, line 3).

Regarding Claims 3 and 10, Wirth discloses the fixation between the sub-frame and the sub-mask to be made by a connection device (column 3, line 61 – column 4, line 47). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a connection device to fix the sub-frame to the sub-mask to ensure the sub-mask is tightly secured to the sub-frame and centered.

Regarding Claims 4, 5, 11 and 12, Oshita discloses the main frame to be made of nickel (English translation: page 2, paragraph 12). Wirth discloses the sub-frame to be made from aluminum (column 4, lines 3 – 10). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the sub-frame be made from aluminum since it is a commonly used material in the art.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle A Lazor whose telephone number is 703-305-7976.

The examiner can normally be reached on Mon - Thurs 6:30 - 4:00, Fridays 6:30 - 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



MAL

June 11, 2003



RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700